Overview

Introduction   This chapter offers instructions on how to perform many basic procedures within SAVER.

Remembering Parameters   Several procedures require many steps and many parameters to be selected by the user. SAVER has been created so that the system "remembers" your choices screen-to-screen. SAVER will repopulate a selection window with your last set of choices. Thus, you could use the **<<Back** and **Next>>** buttons to move back and forth within most procedures and not lose your selections.

In This Chapter   The following topics are discussed within this chapter of the AV-SAVER User's Guide:

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Maps

Creating a New Map

New maps are currently limited to being created from county information. This will change over time. For now, complete the following steps to create a new map within SAVER:

Step	Action
1	Click **File** on the Main dialog window. The **File Commands** window appears.
2	Click the **New** button. The **New Map** window appears.
3	Click the **County** button. The **Counties** window appears.
4	Select a county (or counties) for which you wish to create a map. If you will frequently select the same county, you may wish to set it as a default option. If so, press the **Set Default** button on the **Answers** dialog window before advancing to the next step.
5	Click the **Next>>** button on the **Answers** dialog window. The **Date Range** window appears.
6	Select the year or years of crash data that you wish to include on the map. **NOTE:** You must select at least one year of crash data.
7	Click the **Next>>** button on the **Answers** dialog window. The **Counties: [county names] [date and time stamp] View/Map** window appears. This map may take a few moments to build.

Loading a Map

This feature is not yet active.

Activating Crash Layers

Introduction   There are two primary ways you can activate crash layers, as described below.

Using the Display Button   You may activate some or all of the crash layers within your map by using the SAVER **Display** button, found on the **Main** dialog window. Complete the following steps to use this option:

Step	Action
1	Click the **Display** button the Main dialog window. The Display window appears.
2	Click the **Crash Data** button. The Crash Data: Active/View window appears.
3	Click on the years you wish to activate.
4	Click the **Next>>** button. The years you selected become active.

Using the ArcView Legend   Refer to chapter 4, "Making a Layer Active", for instructions on using the ArcView legend bar to activate a layer.

Selecting Data Points

Introduction　　There are three primary ways that you can select data points or map segments within AV-SAVER. They are described below.

ArcView　　This is the most basic method of selecting a map area upon which to perform some
Select Feature　sort of analysis. This process is described in chapter 4.

SAVER Select　This option allows you to select a road, interstate, or highway. The SAVER
Route Feature　interface is still evolving; for now, this feature is located under the ArcView main menus. Complete the following actions to select a route:

Step	Action
1	Create or load a map.
2	Click **SAVER Temp Menu**. A menu window appears.
3	Select the **Select Route (temporary)** option. The **Route Direct Input** window appears.
4	Select a direction from the six choices.
5	Click either the **OK** or **Cancel** button, as appropriate. The **Route Selection** window appears.
6	Select a route.
7	Click **OK**. The route is selected within the map, and the selected route (and associated data) are redrawn in red. **NOTE:** Unless you have activated the crash layers, the dots represented crashes are shown only on the map; they will not be examined in other operations.

Query Feature Creating queries is an involved process, and can potentially take hours to run after the search parameters have been defined. Be careful and precise when you build queries. While you can select multiple search parameters at every step in the following procedure, doing so creates a larger and far more complicated search.

After you define a query, you may choose to save it, perform a count on the resulting data, or create a report. Complete the following actions to define a query:

Step	Action
1	Create or load a map.
2	Click the **Query** button on the **Main** dialog window. The **Query** window appears.
3	Click the **Define Query** button. The **Data Type Specification** window appears.
4	Select the data of interest. Remember that the data gathered is based off of activated layers.
5	Click the **Next>>** button. The **Crash Category Specification** window appears.
6	Select the parameters. Generally, only 1979 Iowa Format data is available for most counties at the present time.
7	Click the **Next>>** button. An appropriate window (such as the **1979 Iowa Format Query Ty...** window) appears.
8	Select the parameters. You may select multiple types. The windows that appear are specific to the type of query you chose. For instance, if you selected "injury", then the **Injury Query Category** window appears asking for more specific parameter information.
9	Cycle through all of the necessary windows, specifying specific parameters as needed. For instance, if "injury severity" is selected from the **Injury Query Category** window, then: 1. the **Injury Severity Parameter Selection** window appears; and 2. the user must select one or more of the criteria. Click on the **Next>>** button to continue from one window to the next. The **Location Description** window will appear when you have selected all of the required parameters.
10	Complete the fields.
11	Click the **Next>>** button. The **Selected Attributes** window appears.
12	Select the search parameter. You must select an option in order to continue, even if the radio button is already selected. The computer runs the defined query, and the map is redrawn with the resulting data shown in red.

Performing a Count

Procedure The count routine is a simple tool within AV-SAVER that allows a user to determine the number of crashes within a specified map region, as long as the desired crash data themes have been activated. Complete the following actions to perform a count:

Step	Action
1	Open a map.
2	Activate the theme(s) you wish to use.
3	Select a region.
4	Click the **Count** button on the Main dialog window. The **Location Description** window appears.
5	Complete the fields within the **Location Description** window. Use these fields to uniquely identify the count report that you are generating.
6	Click the **Next>>** button on the **Answers** dialog window. It will take a few seconds for the computer to generate the report. The **Feature Count** window appears and the **Answers** dialog window changes to allow for printing of the report.

Creating a Report

Introduction One of the important features of AV-SAVER is the ability to create a vast array of reports based off of the Iowa crash data. Later updates will allow a greater range of data to be examined.

> **WARNING**: The more options you choose when creating reports has a near-exponential effect on the time it takes for the computer to run the report.

Process The process is outlined below, and described in more detail on the following pages.

Stage	Description
1	Create or load a map into the project.
2	Activate the desired crash themes.
3	Select the desired area and/or data points on the map.
4	Perform a count. While this is not a required step, it is recommended so that you will know approximately how many records will be referenced—and thus have a sense of the time it will take to run the report.
5	Create the report.
6	View the report.
7	Save the report, if desired.
8	Export the report (if desired) for further editing, formatting, and printing.

Saving Reports Saving reports is a simple of using the **Save** button on the **Report** window. Please make sure to give your report a unique, easily-identified name. General naming standards are described in chapter 1.

Exporting Reports You may export reports you generate within AV-SAVER to spreadsheet applications, such as Microsoft Excel or Lotus 1-2-3. You can save the files within SAVER and open them in those application, or simply cut-and-paste the desired segments of the report into those applications (or a word processing program such as Microsoft Word).

**Create a
Report**   The following procedure is long and complex. It can potentially take hours to create reports after the parameters have been defined. Be careful and precise when you select your report options. While you can select multiple search parameters at every step in the following procedure, doing so creates a larger and far more complicated report.

Stage	Description
1	Click the **Report** button. The **Report Window** appears.
2	Select the Report Type.
3	Click the **Next>>** button. The **Crash Category Specification** window appears.
4	Select the data category(ies). At this time, generally only the 1979 Format is available for most counties.
5	Click the **Next>>** button. If appropriate, the **1979 Iowa Format Report Types** window appears.
6	Select the report type(s). Case-based and year-based are described below.
7	Click the **Next>>** button. The **Year** and/or **Case-Based Report Selection** windows appear, depending upon your selection in the previous step.
8	Cycle through all of the necessary windows, specifying specific parameters as needed. Click on the **Next>>** button to continue from one window to the next. The **Location Description** window will appear when you have selected all of the required parameters.
9	Complete or update the fields as necessary.
10	Click the **Next>>** button. The **Selected Reports** window appears.
11	Select the parameter(s).
12	Click the **Next>>** button. The **Year-Based Numerical** and/or **Textual** window(s) appear, as appropriate.
13	Select an option.
14	Click the **Next>>** button. The report generation process begins. This may take minutes, hours, or potentially days depending upon the parameters you selected and the processing capability of your computer. When completed, the **Report** window appears.

Case vs. Year Based

Refer to the following table for the difference between case-based and year-based reports:

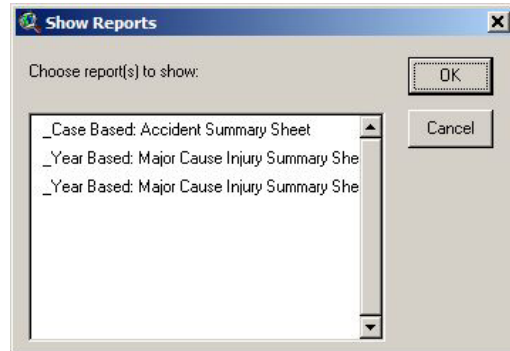| Type	Description
Case-Based	These reports list all selected crashes by case number with a variety of details, all of which are dependent upon the parameters chosen when creating such a report.
Year-Based	These reports summarize crash information by year and by topic (which includes some details for each of those topics). Sample topics include "major cause", "driver condition", and "surface condition". Details could include total crashes and crash severity, for instance.

Viewing the Reports

Once the reports have been created, you can view them by completing the following actions.

NOTE: You may hide the window(s) afterwards by using the **Hide** button on the Report window. The **Hide** button only appears if one or more report windows are open.

Step	Action
1	Click the **Report** button on the **Main** dialog window. The **Report** window appears.
2	Click the **Show** button on the **Report** window. The **Show Reports** window appears. In the example to the right, we have created case-based and year-based reports.
3	Select one or more of the reports.
4	Click the **OK** button. The appropriate report(s) appears in a new window.

Creating a Stack

Introduction   Stacks are useful as a means of visually representing the number of occurrences of crashes on a SAVER map. Complete the following actions to create a stack:

Step	Action
1	Open a map.
2	Activate the desired crash layer(s).
3	Select a map region.
4	Click the **Display** button on the **Main** dialog window. The **Display** window appears.
5	Click the **Create** button. The **Stacking Options** window appears.
6	Click the button representing the desired style of stack.
7	The **Stack Orientation** window appears.
8	Select an orientation option. The **Data Type Selection** window appears.
9	Select the desired option.
10	Click the **Next>>** button. The **Crash Category Specification** window appears.
11	Select the desired option. <table><tr><td>**If you selected...**</td><td>**Then...**</td></tr><tr><td>Thematic stacking,</td><td>you must select stack types, stack categories, and potentially several other parameters. When you have cycled through all of the necessary parameters, the **Location Description** window appears.</td></tr><tr><td>Totals,</td><td>The **Location Description** window appears.</td></tr></table>
12	Complete or edit the fields as necessary.
13	Click the **Next>>** button. The **Selected Stacks** window appears.
14	Click the **Next>>** button. The computer performs the stacking operations. The **Completion** window appears.
15	Click the **OK** button. The map is redrawn with the desired stacks.